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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,227	12/02/2003	Mark Jackson Pulver	PEA27US	4605
24011 7590 09/28/2007 SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, 2041 AUSTRALIA			EXAMINER MRUK, GEOFFREY S	
			ART UNIT 2853	PAPER NUMBER
			MAIL DATE 09/28/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/727,227	<b>Applicant(s)</b> JACKSON PULVER ET AL.	
	<b>Examiner</b> Geoffrey Mruk	<b>Art Unit</b> 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 20, 21 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 20, 21, and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 states, "wherein the integrated circuit comprises a plurality of reticle exposed areas stitched in sequential arrangement, the nozzle rows being defined across the stitch parts." Applicant seems to be claiming features within the integrated circuit, i.e. logic circuitry and pads. However, the examiner is not sure to what the metes and bounds of the claimed invention is since the written description at paragraphs 4243 to 4355 and 4367 to 4370 fail to describe the final CMOS/MEMS structure as a result of the process steps disclosed. Paragraphs 4243 to 4355 merely add an aggregate listing of printing terminology. Further, the specification does not provide a figure showing the final CMOS/MEMS structure. Therefore, based upon an inadequate disclosure, one of ordinary skill in the art would not be able to ascertain the final integrated circuit structure or the arrangement of the areas once the reticle layout is removed.

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2. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 states, "wherein the integrated circuit comprises a plurality of reticle exposed areas stitched in sequential arrangement, the nozzle rows being defined across the stitch parts." Applicant seems to be claiming process steps for exposing areas on a chip. However, the examiner is not sure to what the metes and bounds of the claimed invention is since the written description at paragraphs 4367 to 4370 fail to describe the details of each process step. Further, figure 323 fails to label the "top" and "bottom" of each respective area. Therefore, one of ordinary skill in the art would not be able to make an integrated circuit with the disclosed process steps.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim. Claim 1 recites the limitation "wherein the integrated circuit comprises a plurality of reticle exposed areas stitched in sequential arrangement, the nozzle rows being defined across the stitch parts." There resides no the final CMOS/MEMS structure in the claims that determines what is included and not included

in the invention. Therefore, one of ordinary skill in the art would not be able to ascertain the metes and bounds of the term "wherein the integrated circuit comprises a plurality of reticle exposed areas stitched in sequential arrangement, the nozzle rows being defined across the stitch parts."

2. Claims 20, 21, and 24 are rejected under 35 U.S.C. 112, second paragraph, for being dependent upon a claim with the above addressed 35 U.S.C. 112 problems (i.e. claim 1).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Jarrold et al.  
(US 2002/0093548 A1).

With respect to claim 1, Jarrold discloses a printhead integrated circuit incorporating microelectromechanical inkjet nozzle systems (MEMS) arranged in a plurality of nozzle rows, wherein the integrated circuit comprises a plurality of reticle exposed areas (Fig. 1, element 12) stitched in sequential arrangement, the nozzles (Fig. 1, element 18) being defined in the stitched parts (paragraphs 0004, 0047).

***Response to Arguments***

Applicant's arguments filed 9 July 2007 have been fully considered but they are not persuasive. The applicant argues, "Based on these descriptions, and without a figure showing the final structure, it is respectfully submitted that one of ordinary skill in the art can easily predict the final CMOS/MEMS structure and the manner of arriving at this structure, see MPEP §2164.03." However, the examiner respectfully disagrees since the written description at paragraphs 4243 to 4355 and 4367 to 4370 fail to describe the final CMOS/MEMS structure as a result of the process steps disclosed. Furthermore, applicant admits there is no figure showing the final structure. Thus, one of ordinary skill in the art would not be able to "easily predict" the final CMOS/MEMS and arrive at this structure because there is no detail description and figure(s) showing the layout of an electric circuit (i.e. individual electronic components, wire traces, etc.) that produce the claimed printhead.

The applicant's arguments with respect to Jarrod are not persuasive. The applicant argues "It is respectfully submitted that the subject matter of pending independent claim 1 is not disclosed by previously cited Jarrold, because Jarrold specifically discloses forming the printhead 10 monolithically on the substrate 13 to have the array of inkjet devices 12 (see paragraph [0022]). Thus, Jarrold clearly does not disclose, or suggest, the arrangement of the claimed invention." However, as stated in the final rejection, Jarrold discloses the claimed apparatus, thus meeting the claimed limitations.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is (571) 272-2810. The examiner can normally be reached on Monday-Friday 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GSM  
9/19/2007



STEPHEN MEIER  
SUPERVISORY PATENT EXAMINER